

... CLOSER THAN WE THINK!

by R. L. R. R.

Call for



THE JETSCALATOR

Jet planes and the number of passengers they carry are getting bigger and bigger. Distances between terminals and loading docks are getting longer. The answer is a traveling waiting room with a moving

ramp. Such a project is already being developed by the Chrysler Corporation, and it may be used at the new Washington, D.C., terminal now being designed by Eero Saarinen.

The "jetscalator," as it might be called, would move on wheels higher than a man.

It would have an up-or-down ramp and capacity for about 100 people. When departure time is at hand, travelers wouldn't have to stir from their chairs—they'd be transported in the "jetscalator" right to the side of the plane.

Next week: Cellar-size Scoopers

... CLOSER THAN WE THINK! ... *by Redebaugh*

SUNRAY SEDAN

Tomorrow the sunmobile may replace the automobile. The power of beamed sunshine will propel it. Your solar sedan will take energy from sunrays and store it in accumulators that work like a battery. This power will drive your car just like gasoline does today.

Yes!
IT'S
CLOSER THAN WE
THINK IT!

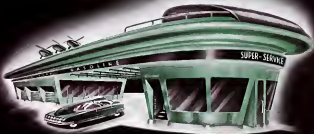
NEWS FLASH!

BULLETIN—SOLAR AUTOMOBILE

DETROIT, FEB. 7—THE AUTOMOBILE INDUSTRY MAY BE PRODUCING CARS DRIVEN BY SOLAR POWER IN THE YEARS AHEAD, JAMES C. ZEDER, CHRYSLER VICE-PRESIDENT, PREDICTED TODAY.

"WE KNOW HOW TO GET ELECTRICAL ENERGY FROM SUNLIGHT BY MEANS OF SILICON CONVERTERS," SAID THE CHRYSLER ENGINEERING EXPERT. "IF WE CONTINUE TO INCREASE THE EFFICIENCY OF THESE CONVERTERS, AND IF WE ARE ABLE TO DEVELOP SMALL, EFFICIENT ENERGY STORAGE CELLS, SOLAR POWERED CARS WILL BE FEASIBLE."

ZEDER ADDED THAT EXPANDING KNOWLEDGE OF NUCLEAR AND SOLAR ENERGY IS "BRINGING INTO SIGHT" MORE ABUNDANT POWER FOR PEOPLE EVERYWHERE.



In Step with the Future

BOHN

Revolutionary Rockets!

Authorities predict that aircraft designs of tomorrow will be of the advanced rocket type. The new rocket models will permit much higher speeds at much higher altitudes. Thus new developments which require light alloys keep opening up avenues for improved products. The Bohn organization is one of the world's largest and leading specialists in the engineering and fabrication of aluminum, magnesium and brass products. When peace comes, Bohn metallurgists and engineers should be helpful to you in designing your products for tomorrow.

BOHN ALUMINUM AND BRASS CORPORATION

GENERAL OFFICE—LAFAYETTE BUILDING • DETROIT 26, MICHIGAN

Branches and Fabricators

ALUMINUM • MAGNESIUM • BRASS • AIRCRAFT-TYPE BEARINGS



BOHN

BUY
WAR
BONDS

BOHN

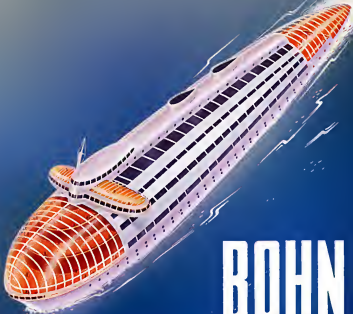


BOHN



TRIM, SLIM AND EFFICIENT





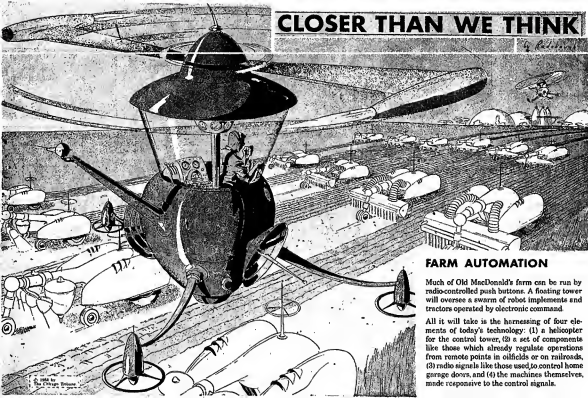
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BOHN



CLOSER THAN WE THINK

by Radovan

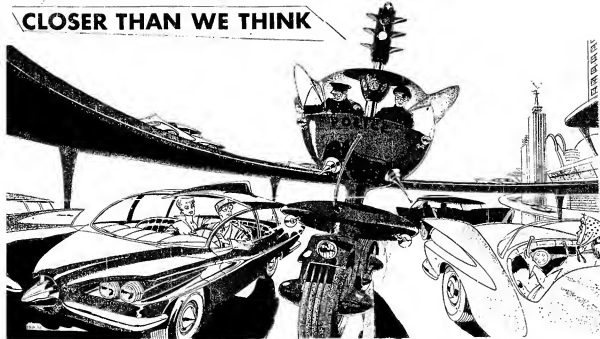


FARM AUTOMATION

Much of Old MacDonald's farm can be run by radio-controlled push buttons. A floating tower will oversee a swarm of robot implements and tractors operated by electronic command.

All it will take is the harnessing of four elements of today's technology: (1) a helicopter for the control tower, (2) a set of components like those which already regulate operations from remote points in oilfields or on railroads, (3) radio signals like those used to control home garage doors, and (4) the machines themselves, made responsive to the control signals.

CLOSER THAN WE THINK



"POGO" POLICE CAR

Beat-walking policemen gave way years ago to modern, speedy squad cars. But today squad car movement is slowed down by the increasing crush of traffic. The solution could be a radical new kind of transportation designed

for mobility on jammed streets. Here, for tomorrow, is the concept of policemen on mechanical pogo platforms—giant, tandem-wheeled vehicles kept upright by gyroscopic action, high enough to see across expressway tieups, narrow enough to wheel through them to any point of trouble.

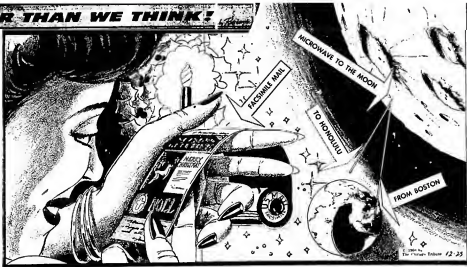
CLOSER THAN WE THINK!

LUNAR MAILBAG

Christmas cards of the future may be transmitted electronically. The post office is studying the use of space technology for quick movement of endless quantities of mail between widely separated points.

To do this, microwave stations would be set up. Envelopes would be opened mechanically, and automatic "fingers" would remove the contents and expose them to a scanner. Impulses from the card or letter might be beamed to a postal satellite or even the moon, bounced back to the destination point, reproduced there in the original printing or handwriting, sealed in a capsule and delivered. All this might be done minutes from the time the communication first arrived at a post office thousands of miles away.

Next week: Atomic Seafreighter

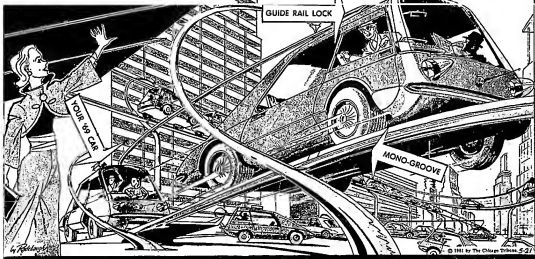


CLOSER THAN WE THINK!

MONOLINE EXPRESS

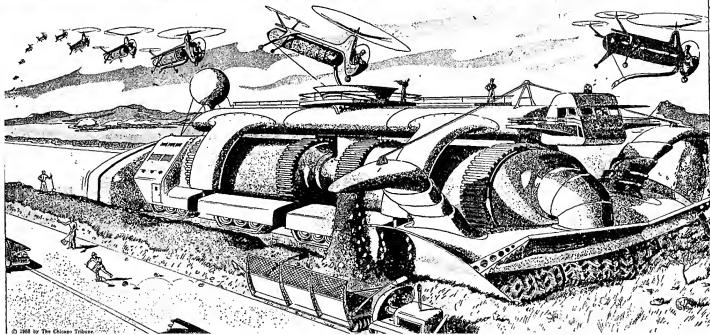
Two ideas now being developed in Detroit—an automatic highway and a high-speed monorail bus system—are combined in the concept of the Monoline Express, in which private automobiles will use a novel "high road" to commute to town or travel between cities.

General Motors proposes the "autoline"—a computer-controlled highway in which cars would travel almost bumper to bumper at speeds of 120 miles per hour or more. And a business group wants to see the two sections of the University of Michigan campus linked by a "monobus" which would move on a novel monorail guidetrough up in the air. Put together, the two concepts result in automatic travel in your own car at light aircraft speed!



CLOSER THAN WE THINK!

by Robinson



© 1968 by The Chicago Tribune

HIGHWAYS BY AUTOMATION Tomorrow's turnpikes will "flow" out of giant machines like magic ribbons across the countryside. The basic equipment is already in existence; only a few improvements are needed.

The forward section of such a road-builder would be a variant

of the new jungle-smashing LeTourneau "tree-crusher" combined with a grader. The middle section would pour concrete in a never-ending flow, with the rear portion leveling the still soft pavement. A line of freighter helicopters would be on hand to feed the behemoth with the material necessary to keep it moving across any type of country.

CLOSER THAN WE THINK!

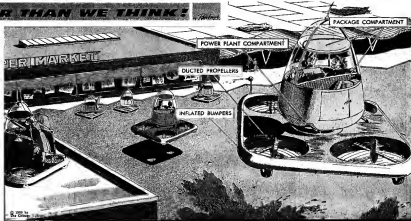
Reprints

SHOPPER HOPPERS

A kind of "flying carpet" may be the answer to the problem of personal transportation in the future. The flying platforms shown here would be suitable for such uses as low altitude hops to neighboring shops.

Military models of these "hoppers" have already been developed at Piasecki Aircraft and Chrysler. The flat platforms are lifted by air blasts through ducts at the bottom. The vanes of the ducts are movable, to permit control of direction. These vehicles would hover like helicopters and move at city traffic speeds. Construction would be simple, and costs could be kept low enough for civilian requirements.

Next Week: Farm Rotamobilers



© 1955 by
The Disney Company

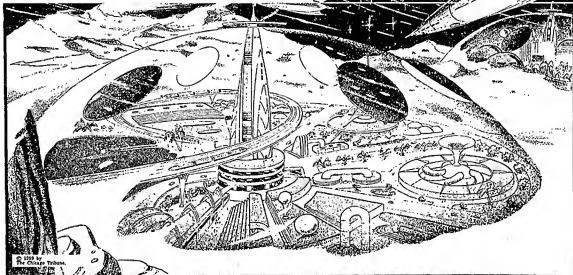
POLAR CITY

As Alaska joins the union, more rapid development of the vast open spaces of that new state can be expected. Experts are already studying the problems involved in creating the population centers that will be necessary for tapping the hidden wealth of the area and building the defense outposts that may be required.

One possibility would be to construct arctic cities under great domes of transparent plastic or glass, where springlike temperature could be maintained. Such domes are already in use at the Glasgow Central Station in Scotland and at a big downtown plaza in Sao Paulo, Brazil.

How would isolated polar cities, ringed by icebergs and mountains, be supplied? Our armed forces have a solution—the dirigible. Recently, the Navy told how its blimp ZPG-2 successfully flew food and other supplies to an ice island team of scientists only 500 miles from the North Pole.

Next week: Electronic Home Library



© 1959 by
The Chicago Tribune

... CLOSER THAN WE THINK!

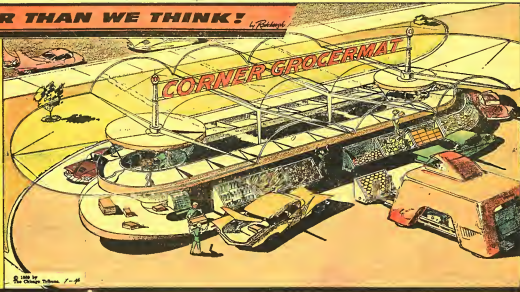
by *Robert Langley*

CORNER GROCERMAT

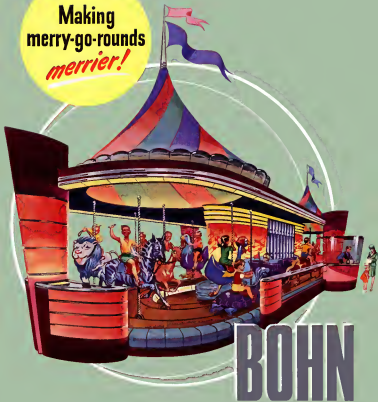
Here's an idea to make marketing faster and easier! As proposed by the Clark Equipment Company of Battle Creek, Michigan, it involves the use of self-service "food banks" that would be preloaded with bread, milk, soups, etc., at the wholesaler's and then hauled to handy neighborhood locations for the convenience of retail shoppers.

The idea might be further developed to enable the housewife to drive around an oval arrangement of such preloaded display sections and pick out what was needed. A clerk would put the desired groceries on a moving belt which would move when the auto did, so that the purchases would wind up at the checkout counter at the same time the driver did. They'd be packaged and paid for — all with the customer still seated at her wheel.

Next week: Factories in Space



Making
merry-go-rounds
merrier!



BOHN



future commuter

BOHN

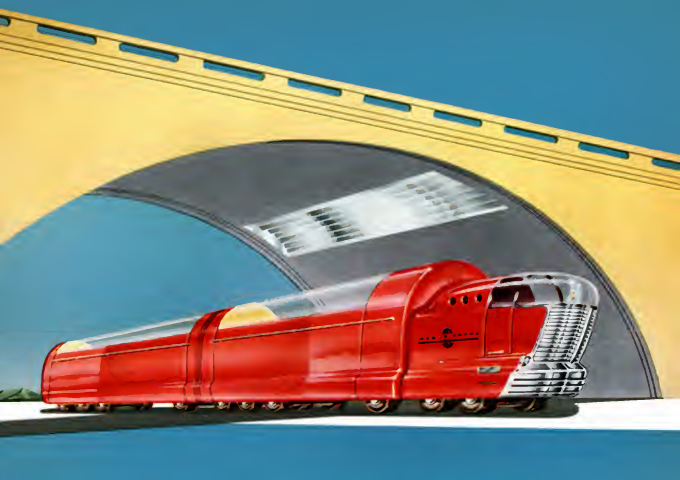
BOHN





BOHN

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XR

Streamlined for Action!

Fire engines of the future, so designers tell us, will be ultra-modern in design and efficiency, incorporating many new features. Aluminum and magnesium will play a vital part in many of the post-war designs now on drawing boards throughout America. Their use eliminates weight—reduces operating costs—and adds greatly to eye and sales appeal. If your product now uses—or can use—these versatile light alloys, the Bohn Engineering staff would like to discuss with you their many outstanding advantages.

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GENERAL OFFICES—LAFAYETTE BUILDING • DETROIT 26, MICHIGAN

Designers and Fabricators—ALUMINUM • MAGNESIUM • BRASS • AIRCRAFT-TYPE BEARINGS

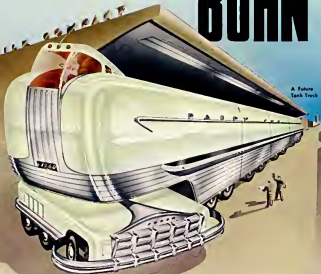


BOHN



BOHN

A Future
Tank Truck



25,000 a day!

Tremendous increases are foreseen in travel by air in the post-war era. Airports that can handle 25,000 passengers a day may be needed. Aluminum and magnesium will play a vital part in postwar aircraft and other products. Bohn engineers will be at your service in designing your products for use of these modern light alloys.

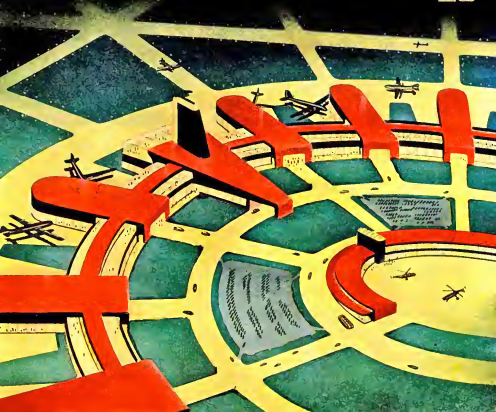
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A Future Design!

The accumulation of new technical data, along with the great developments in the aluminum and magnesium fields, promise many new things for a post-war world. Among these is the building on a quantity production basis of motor launches in beautiful, intriguing and useful designs. Light alloys provide both sales appeal and great operating economy. If your product uses—or can use—aluminum or magnesium, the Bohn organization would be glad to discuss their many advantages with you.

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NEW DESIGNS IN OBSERVATION CARS

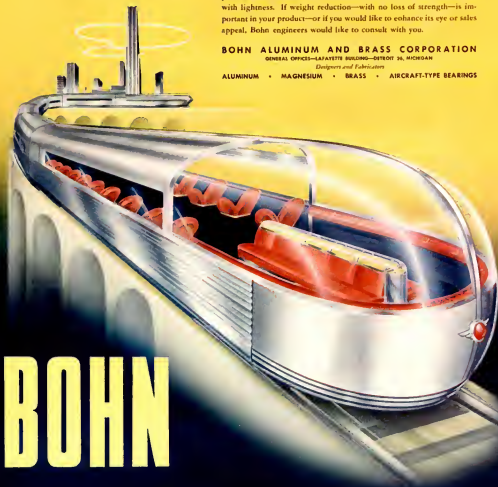
Here's a railway observation car of the future, from which you may one day watch the wonders of the world of tomorrow unfold, as you spin by in this super-streamliner. And many of the things you may see will likely be made of Bohn aluminum or magnesium. For these metals possess that matchless combination for the industrial world—strength with lightness. If weight reduction—with no loss of strength—is important in your product—or if you would like to enhance its eye or sales appeal, Bohn engineers would like to consult with you.

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BOHN



BOHN

Beauty and Utility in the Modern Kitchen

Here is super-modernity in its newest form. This design of tomorrow's kitchen for small apartments shows an overhead arrangement of sink, range and refrigerator, all operated hydraulically by the mere pressure of a button. Such revolutionary innovations are rapidly sweeping around the world. More and more are light alloys engineered and fabricated by the Bohn organization being used in new developments. Here at Bohn we are thoroughly familiar with what can and what cannot be accomplished with aluminum and magnesium. Let us advise you how these modern light alloys can be put to practical use—increasing the usefulness and saleability of your product. Bohn engineers and metallurgists are at your service. Our many years of practical experience are at your disposal. Maybe now is the right time for you to write us.

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BRASS DIVISION — 1000 STEEL ROAD — WILSON, N.J., 07090

Designers and Fabricators

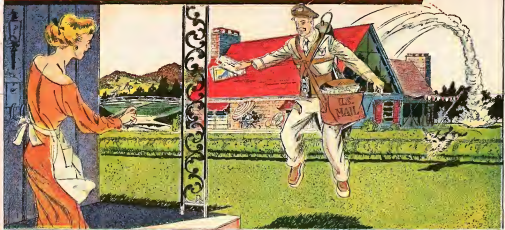
ALUMINUM • MAGNETRON • BRASS • AUTOMATIC TYPE MACHINES

BOHN





--- CLOSER THAN WE THINK! *by R. L. R. R.*



ROCKET MAILMEN Uncle Sam's mailmen can look forward to going faster, getting farther, and doing so with less effort than ever before. All it will take will be a device like the recently perfected "rocket assist" which were originally developed to help infantrymen leap like grasshoppers.

Just how such equipment works is still a military secret. The designer,

Reaction Motors, Inc., is not permitted to say how large the device is, or how long it fires, or what kind of fuel it uses. But best guess is that the rocket fires intermittently, so that the wearer can bound from spot to spot as he wishes, with no more energy than it takes to walk. Also the mechanism is believed to be of small size, simply constructed and low-priced. What a boon for mailmen and others whose work takes them from door to door!

--- CLOSER THAN WE THINK! *by R. B. Langley*

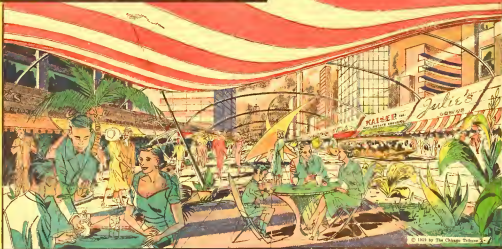
REJUVENATED DOWNTOWNS

Traffic-choked downtown sections will be rejuvenated and transformed into airy, wide pedestrian malls when the designs of city planners are adopted in a none-too-distant future.

Large-scale plans and programs are springing up all over the country. One example is fashionable Lincoln Road in Miami Beach, being studied today for conversion into a traffic-free shopping promenade. Another is utilitarian Woodward Avenue in downtown Detroit. There are many more in between.

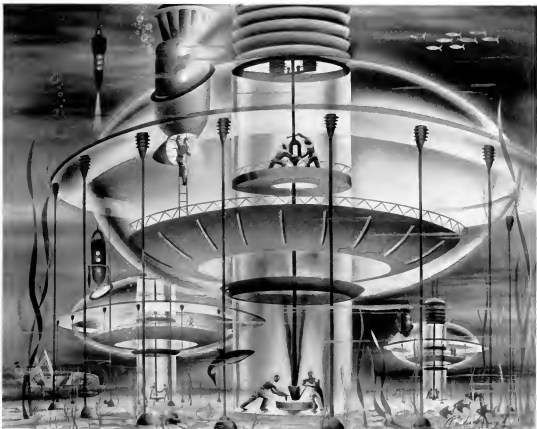
Traffic will be parked in adjoining areas. Store fronts will be modernized and beautified. New lighting at night and newly planted trees, shrubs and flowers will give these malls an exciting air. The aim is to regain for downtowns their former status as urban headquarters.

Next week: All-Seeing Eyes









When gushers come in 50 fathoms down... *National Oil Seals will protect the bearings*

In his ever-widening search for oil, man may soon tap petroleum pools beneath the deeper ocean. Machinery in tomorrow's submerged oil fields will be only as efficient as the operation of its bearings—and those bearings will, as today, need the protection of lubricant seals.

Regardless of the sealing demands of future machinery, industry can look to

National for the answer. Our engineers are constantly developing seals to match the imagination of the most advanced designers.

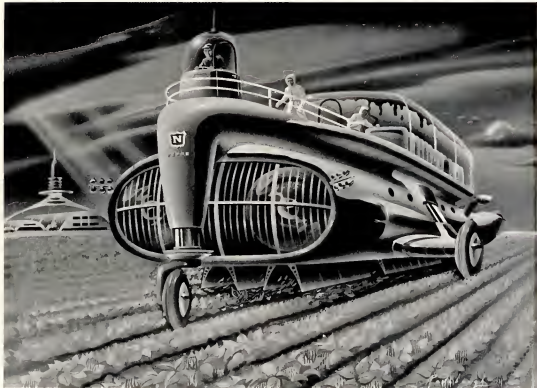
Because of this "years-ahead" research, National seals give you "years-ahead" performance in today's machines. National Oil Seal engineers like tough sealing problems. Will you write us about yours?



Original and replacement equipment on cars, trucks, buses, tractors, agricultural and earth-moving equipment, appliances, railway equipment, machinery.

NATIONAL MOTOR BEARING CO., INC.

GENERAL OFFICES: Redwood City, Calif. • SALES OFFICES: Buffalo, Chicago, Cleveland, Dallas, Detroit, Milwaukee, New York City, Philadelphia, Richmond, Rochester, W. Springfield, Mass., Syracuse, Wichita • PLANTS: Redwood City, Downey, Long Beach, Calif., Van Wert, Ohio • PRODUCTS: Oil, Fluid and Grease Seals, Airline Gaskets, "O" Rings, Silicone joints, Shims.



When frozen food plants are put on wheels...

National Oil Seals will protect the bearings

Someday, perhaps frozen food plants will actually roll through the fields, capturing the fresh flavor of fruits and vegetables even more efficiently than now. Imagine the strain such ponderous equipment will put on bearings and other vital machine parts.

When that day comes, you can be sure National will be ready. Our engineers are continually researching and testing oil seals to match the imagination and daring of the most forward-thinking designers.

Because of this "years-ahead" research, National Oil Seals give "years-ahead" performance in your products of today. We welcome tough sealing problems. If you have one, won't you call on us?

NATIONAL MOTOR BEARING CO., INC.

GENERAL OFFICES: Redwood City, Calif. • SALES OFFICES: Buffalo; Chicago; Cleveland; Dallas; Detroit; Milwaukee; New York City; Philadelphia; Springfield, Mass.; Syracuse; Wichita.
PLANTS: Redwood City, Calif.; Downey (Los Angeles County), Calif.; Van Wert, Ohio. 2272

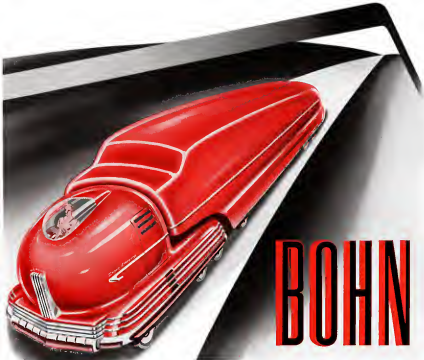
DO YOU OPERATE HEAVY EQUIPMENT?

Where big earth movers, farm implements and tractor operate, the efficient performance of oil seals is of extreme importance. Once an oil seal has been "seated" in its shaft it is extremely difficult, after removal, to replace it in exactly the same position on the shaft. That's why new ones should be installed on every repair. Lubrication Equipment makers recommend it. National Oil Seals are available for all leading makes of cars, trucks, buses, tractors and implements. They are available throughout the nation from automotive parts and bearing distributors.



NATIONAL
OIL AND FLUID SEALS

Original equipment
for all cars, trucks,
buses and tractors
— in fact, wherever
shafts turn.



BOHN

TRUCKS TO COME

PRODUCTS OF TOMORROW



BOHN

BOHN ALUMINUM AND BRASS CORPORATION, Detroit, Michigan





When automobiles both swim and fly...

National Oil Seals will protect the bearings

Engine in rear? Tricycle wheels? Polaroid plastic top? Atomic power? Just as at home in the water or in the air as on the highway? Whatever the car of the future is like, you can be sure of this—it will have bearings, and the bearings will be protected with National Oil Seals.

For years National Oil Seals have been in the vanguard, anticipating performance requirements of modern machines of all kinds. Because of National's "years-ahead" research for the products of tomorrow, National Oil Seals give "years-ahead" performance in your products today.

We welcome tough sealing problems. If you have one, won't you call on us?

NATIONAL MOTOR BEARING CO., INC.

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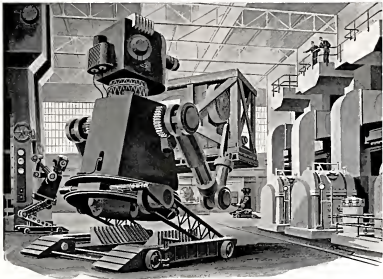


Under water vehicles NOW!

The importance of efficient oil seal performance in motor vehicles, capable of operation while completely immersed in water is obvious. Today this "miracle" is an accomplished fact as illustrated by the military type vehicle shown at left—a typical example of "years-ahead" performance in the vehicles of today.



Original equipment for all cars, trucks, buses and tractors in use, just wherever shafts turn.



CYBERNETICS—how will you use it?

Quietly but irresistibly, Cybernetics is changing the shape of our industrial way of life—and will make fantastic changes in our personal lives as well.

Cybernetics is the science that is substituting the machine for many functions of the human mind.

If this sounds like something out of the far, far future, note this:

In a major automobile plant, *saw steel* automatically feeds onto a moving belt line—and comes off the line as precision-machined engine blocks... *completely automatically!*

In tin plate mills a device is now in use that looks for pin holes in a fast moving strip of tin plate—and then actually inspects the

shearing table ahead to chop out and reject any defective section. *Without human assistance!*

In chemical plants, furniture factories, offices, warehouses—even in retail stores—Cybernetics is making an impact that will bring us more production, more jobs, more income and fun, for more leisure.

For 118 years, the National Shawmut Bank has cooperated in the development of industrial progress. Today, this modern bank is working with businessmen who are already using Cybernetics, or are planning how to adapt it to their business. A Shawmut officer will be glad to talk it over with you at your convenience.

Your business can bank on the bank *Business* chooses

The National **Shawmut Bank**
OF BOSTON

Member Federal Deposit Insurance Corporation



Your telephone might be like this!

Simplification is the order of the day. A telephone to which you listen and into which you talk, without having to hold a transmitter, is a future possibility. Similar improvements will be made in many other familiar products, and you will see too, a great variety of new things.

Many of these will call for wider use of the light alloys—aluminum and magnesium. Bohn engineering and research facilities will be at your disposal, in making the widest possible use in your products of the many sales and operating advantages of these light alloys.

BOHN ALUMINUM AND BRASS CORPORATION, DETROIT 26, MICHIGAN

GENERAL OFFICES—LAFAYETTE BUILDING

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A Future
Motorcycle

BOHN

BOHN LOOKS AHEAD ☆ ☆



Lighter materials—greater strength—improved economy—new beauty—will be the advantages of the cars of tomorrow. Bohn, the only volume operator in the world specializing in aluminum, magnesium and brass in house products, is in a position to give unbiased advice on all of these basic metals. This is a unique service. When power comes, remember the name Bohn. The vast Bohn resources and metallurgical studies might prove very useful in solving some of your manufacturing and selling problems.

BOHN

BOHN

Magificent new designs, like this one, will soon day be popping up very rapidly. These advanced models will be powered with modern engines that will operate economically at high speeds. Bohn engines will be of great importance in developing these new concepts. Light alloys by Bohn will be generally used. If your product can't be divided by—made of a light alloy remember the Bohn organization. This is the only large scale operation in the world which engineers and fabricates aluminum—magnesium—and brass products within the same organization.

Station Wagons That Will Meet You



BOHN
ALUMINUM
& BRASS

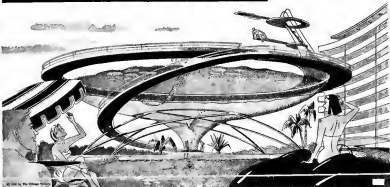


BOHN ALUMINUM AND BRASS CORPORATION
GENERAL OFFICE: LAWRENCE, KANSAS, U.S.A.

Factories and Sales Offices:
ALBANY — BIRMINGHAM — CHICAGO — MEMPHIS — NEW YORK

CLOSER THAN WE THINK!

by *Richard*



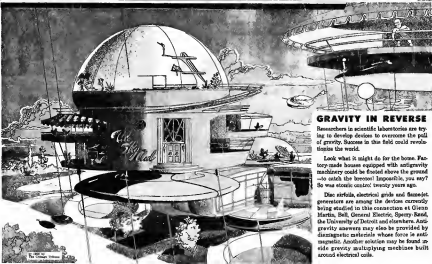
FISH BOWL SWIMMING POOL Today's spectators can see beneath the surface of a swimming pool only through windows or portholes below the water line. But tomorrow's vacationers will be able to do far better! Pools in transparent structures above the ground will enable observers to relax alongside

and have the fun of watching underwater sports thrillicking at the same time.

This on-the-car pool for swimming in the future is shaped like a cocktail glass or the bottom half of a fish bowl. It is reached by a circular ramp leading to platforms and diving boards—a highly decorative addition to the grounds of tomorrow's pleasure resorts.

CLOSER THAN WE THINK!

by Riddough



GRAVITY IN REVERSE

Researchers in scientific laboratories are trying to develop devices to overcome the pull of gravity. Success in this field could revolutionize the world.

Look what it might do for the home. Factory-made houses equipped with anti-gravity machinery could be floated above the ground—to catch the breeze! Impossible, you say? So was atomic control twenty years ago.

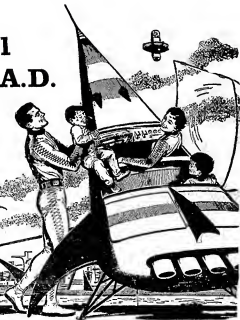
Disc airfoils, electrical grids and flamejet generators are among the devices currently being studied in this connection at Glenn Martin, Bell, General Electric, Sperry Rand, the University of Detroit and elsewhere. Anti-gravity answers may also be provided by diamagnetic materials whose force is anti-magnetic. Another solution may be found inside gravity multiplying machines built around electrical coils.

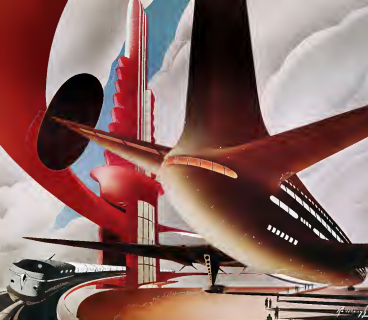
To you whose grandchildren will be living in 2056, A.D.



The following message from American Iron and Steel Institute to the steelmen of 2056 has been sealed in a time capsule and placed in the cornerstore of the great new stainless steel clad office building at 155 East 42nd Street in New York City.

We reprint it here because we believe that you will enjoy knowing what the steelmen of today expect the future will bring to your loved ones.





--- CLOSER THAN WE THINK! ---

by Richard





When helicopters are mammoth sky cruisers...

National Oil Seals will protect the bearings

These mechanical marvels of tomorrow, like all the machines of today, will depend largely on efficient bearing performance. And bearing performance in turn is directly dependent upon the efficiency of lubricant seals.

For years National Oil Seals have been in the vanguard improving the performance of modern machines of all kinds. When the day of the "giant helicopter cruiser" arrives, you can be sure that National Oil Seals will be ready. And because of "years-ahead" research for products of tomorrow, National Oil Seals give "years-ahead" performance in your products today. We welcome tough sealing problems. If you have one, won't you call on us?

NATIONAL MOTOR BEARING CO., INC.
 REGIONAL OFFICES: Redwood City, Calif. • SOUTHERN OFFICES: Buffalo, Chicago, Cleveland, Dallas, Detroit, Milwaukee, New York City, Philadelphia, Springfield, Mass., Syracuse, Wichita.
 PLANTS: Redwood City, Calif.; Downey (Los Angeles County), Calif.; Van Wert, Ohio.



Original equipment for all new motor, truck, house and tractor—in fact, wherever shafts are



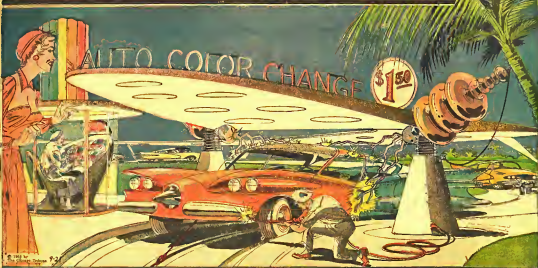
ATTENTION "FLEET" OPERATORS!

An oil seal is a precision task. Once "seated" in the shaft it is extremely difficult, often impossible to replace it in exactly the same position on the shaft. So when bearings are replaced or fresh wheels repacked for more NEW motor units are installed it's always insurance against breakdowns and accidents caused by dry bearings or oil on brake linings. This goes for your personal automobile, too.

3-179

--- CLOSER THAN WE THINK!

by *Reid*



QUICK-CHANGE CAR COLORS The automobile industry is studying a new kind of specially sensitive car body finish whose color can be changed at will. An electromagnetic gun would emit rays that would instantly "repaint" the car in any desired hue or combination—perhaps to harmonize with miledy's new fall outfit.

D. S. Harder, retired executive vice-president at Ford, recently described research in this direction. He added that this new kind of "photosensitive" surface would also be selfcleaning—with the silent energy of static electricity or a supersonic vibrator driving off all dust and dirt.

... CLOSER THAN WE THINK!

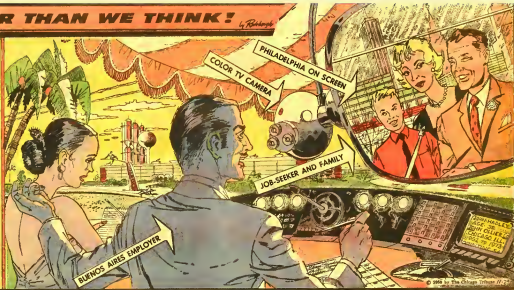
by Riddings

ONE-WORLD JOB MARKET

Until recently, a man limited his job hunting to his home town. Now he sometimes searches the country. Tomorrow's job markets—and opportunities—will be world-wide.

Television will make it possible for an employer in Buenos Aires to interview a job seeker in Philadelphia. New Yorker Felix Cuervo has already pioneered in this direction, interviewing applicants for Civil Aeronautics Administration positions over a 2-way closed circuit. Said Cuervo: "Dress, bearing, manner and ability can be gauged over television about as accurately as in personal interviews."

Next Week: Wall in the Sky



CLOSER THAN WE THINK! THE NEW 1988 PONTIAC FIREBIRD

CLOSER THAN WE THINK:

CLOSER THAN WE THINK

CLOSER THAN WE THINK

CLOSER THAN WE THINK

CLOSER THAN WE THINK!

GRAVITY IN REVERSE

Interiors in space. Interiors are key to a landing device to reverse the pull of gravity. Features in this film could revolutionize the future.

Last night it might be the last time. For many months scientists with ultrasonic technology could be landed above the ground and avoid the danger. Inexpensive, they say, the new system would enable future space age.

Two small, chemical-grade and fluorescent phosphors are among the devices currently being applied to light conversion at Ohio State, Ball, Glasser, and others. Space Ball, the University of Illinois and elsewhere, demonstrate sources may also be parallel for deep-sea nuclear submarine missions in a gravity-multiplying machine for the future. Gravity-multiplying machines for the future.

CLOSER THAN WE THINK

— CLOSER THAN WE THINK:

SPACE MAYFLOWER

If the earth should ever become overpopulated, it might be more secure than becoming a cosmopolitan. Bands of alien magicians are already plotting, according to some of the leading scientists, to invade this planet.

It is William of Shikell Chemicals has told Congress that space vehicles containing more than one million pounds could be a weapon, carrying microbes "with all the power of a hydrogen or atomic bomb." "One day a

killing words in inches of antihydrogen.

D. J. Melhorn has predicted that in the next decades would lead "the office industries."

These scientists are not alone in their predictions. They have been given other members of the first world war that the earth continues to dominate.

1912 World Almanac Bureau



When "push-button" farm machines are a reality...

National Oil Seals will protect their performance

Some day soon, in the air-conditioned comfort of his helicopter "control tower," the farmer will flip a switch and send teams of ingenious machines out to till his fields. In a single integrated operation, the robot gangs will pulverize, condition and furrow the soil, drill seed and fertilize, perhaps implant soluble water capsules and transmit a pest-killing electronic "bath."

Such machines will represent a superb achievement in engineering. Yet, like today's equipment, performance will still depend on oil seals and O-Rings. Oil seals

are steel-and-synthetic rubber or steel-and-leather parts that keep lubricant in and dirt and water out of assemblies. O-Rings are synthetic rubber diameters—pressure seals used in hydraulic and pneumatic assemblies.

National pioneered oil seals and O-Rings, and today is a leader in this field. Perhaps precision National Oil Seals and O-Rings can improve your product's performance, lengthen its life, or make it easier to assemble or service. Our long experience is at your disposal.

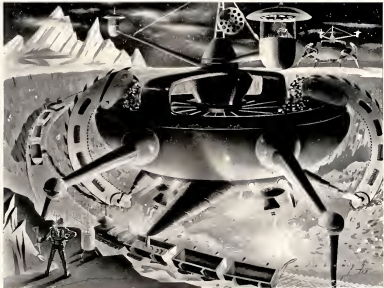


Original equipment on cars, trucks, buses, tractors, agricultural and earth-moving equipment, railway rolling stock, machinery and appliances.

NATIONAL MOTOR BEARING CO., INC.

General Offices: Redwood City, California. Sales Offices: Chicago, Cleveland, Dallas, Detroit, Downey (Los Angeles County), Milwaukee, Newark, Van Wert, Wichita. Plants: Redwood City, Downey and Long Beach, California; Van Wert, Ohio. Products: Oil, Fluid and Grease Seals, O-Rings, Airiron® Ducts, Silicone parts, Shims.

*T.M. Reg.



When atomic machines man the iron mines of Mars... precision National Oil Seals will protect their performance

Machines of new and daring design will be needed when man taps the iron deposits of Mars. Spaceably efficient despite sub-zero temperatures and whirling sand storms, they will stride across wastelands, locate ore electronically, mine and processing the valued metal. And, as today, their vital moving parts will rely on oil seals and O-Rings for protection and performance.

Oil seals are precision steel parts with leather or synthetic rubber sealing members—used wherever a shaft turns—

keeping lubricants in, dirt and water out. O-Rings are synthetic rubber diameters, universally employed as pressure seals in hydraulic and pneumatic mechanisms.

National pioneered oil seals and O-Rings, and today is a leader in the field. We have over 2,500 different standard-design seals for all types of mechanical assemblies; we can modify or design new seals to meet exact specifications. The nearest National field office can give you complete information and engineering help.

NATIONAL MOTOR BEARING CO., INC.

General Offices: Redwood City, California. Sales Offices: Chicago, Cleveland, Dallas, Denver, Detroit, Los Angeles, Comp., Milwaukee, New York, New York, Wichita. Plants: Redwood City, Downey and Long Beach, California; Van Nuys, Ohio. Products: Oil and Grease Seals, O-Rings, Antiseal® Coats, Silicone parts, Shims.

T. M. Ray



Original equipment on cars, trucks, buses, tractors, agricultural and earth-moving equipment, railway rolling stock, machinery and appliances.

When the legal speed limit is 200 m.p.h.

Circle 192

National Oil Seals will protect the bearings

Vitalize your product in the world of tomorrow: automobiles for 200 m.p.h. highways?—jet-propelled farm equipment?—or atomic-powered flying machines? Whatever it is, you can be certain that its performance will depend on the efficiency of oil seals. Today, National Oil Seal engineering is looking far ahead with new designs, are making standard compounds which will permit bearings to operate closer to their peak capabilities. Because of this "years-ahead" research for the machines of tomorrow National Oil Seals provide "years-ahead" performance for your products of today. We welcome tough sealing problems. May we help you?

NATIONAL MOTOR BEARING CO., Inc.

General Office: Redwood City, California
Plants: Redwood City, Calif.; Newark, New Jersey
Los Angeles, California; Van Nuys, Ohio

Original equipment for all cars, trucks, buses, tractors
—in fact, whenever shafts turn

NATIONAL
OIL AND FLUID
SEALS



DO YOU OWN A CAR OR A FLEET OF CARS?

Oil seals are usually damaged when removed for bearing inspection or repacking with grease. For safety, longer life and better performance, make sure your oil-chamber installs a new seal every time one is removed. Typical example: when you have your car lubricated, front wheels re-packed, brake pads, too, that you get genuine parts for your make of car or fleet of trucks.

Solo...into SPACE MINUS AIR !



This new technology of vacuum research finds better vitamin concentrates, oils, vacuum apparatus and laboratory tools to serve industry. And now . . . what next?

Dallas is doing you've never seen a "space shuttle" that explores scientific wildernesses and advances into space-manage.

No space is needed, even stored on earth below a group of research chambers learned how to create amazing vacuum with a new-type distillation pump. Imagine a chamber so completely equipped it holds less than one part in a hundred billion of air. Such a vacuum is a laboratory curiosity, yet one who would have believed this literally one of earth's only could be passed through high-vacuum stills, without destroying the vacuum? That is what Distillation Products, Inc. has accomplished in applying that new principle to commercial experience.

The realm of ultra-ultra vacuum is still a new movement in the research chemical—one rich in potential discoveries. D.P.I. operates the only commercial laboratory in the world devoted exclusively to high-vacuum research in reaction and technology. In those years of "solid" work in space-manage, D.P.I. has become one of the world's largest producers of natural Vitamin A concentrates. Its new made high-vacuum pumps, pumps, molecular stills and related apparatus available for other research workers . . . is currently on the

brink of revolution, another new vacuum concentrate that is totally unique, completely in a class of its own.

Keywords of this new technology is D.P.I.'s high-vacuum distillation equipment—the "space man" that not only into a chamber's world unknown before. When for the first time they'll bring in light on organic oil processing in any one's plant—that this much is sure, we have only begun to tap the possibilities of the new-vacuum world.

If a product or process of yours could conceivably benefit from the application of these special tools and skills, why not get in touch with D.P.I.? A special Service Laboratory is here to serve you, laboratory, industrial, research, and a wide experience in handling the needs of food and drug processors are all at your command. So—how can D.P.I. research facilities help solve a problem of yours?



'TWEET THE ONLY VITAMIN A CONCENTRATE OF ITS KIND!

Here's the reason why D.P.I. in three years has become one of the world's leading producers of Vitamin A concentrate. Distilled Vitamin A concentrate. This product of the high-vacuum stills at unique on hand and therefore is a Distilled Vitamin A in the strictest sense of the word. Wonderful by far than other natural

oil concentrates, it does not impact flavor or odor to the most delicate foods. And make?—Distilled Vitamin A concentrate is one of the most stable in heat and is then very effective. A concentrate in the form of a liquid or solid on request.

Just as we know this remarkable, versatile concentrate that has taken the food and pharmaceutical worlds by storm. Get the facts in our literature—free! "The Story of Vitamin A" letters—your technical, but thorough, information. Other literature available if requested—on your business interests, please.

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DISTILLATION PRODUCTS, INC.

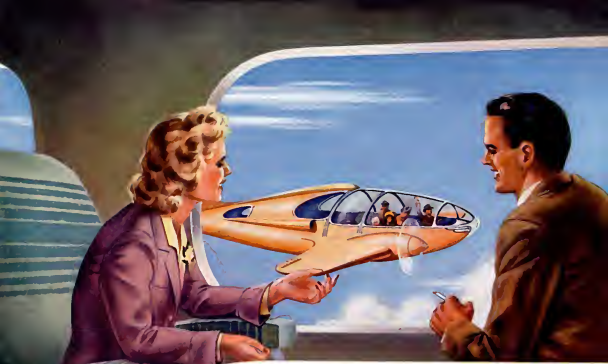
Researching High-Vacuum Research

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SALES AGENTS: DISTILLATION PRODUCTS DIVISION, GENERAL MILLS, INC., GENERAL OFFICES, MINNEAPOLIS, MINN.



CEILING UNLIMITED... for the Marco Polos of Tomorrow

Transcontinental and transoceanic skyliners, yes and "winged sedans" for post-War America too. These are no idle day-dreams of a distant future. They're realities-in-the-making . . . forged in the events of today for the Marco Polos of tomorrow.

With hundreds of thousands of young Americans trained to make, to fly and to service planes . . . with unprecedented quantities of lightweight metals, plastics, plywoods, mass-produced horsepower and high-octane gas... post-War aviation is being endowed with birthrights at least as rich as any type of transportation ever before received. From

these will come a fitting supplement to our earth-bound transportation.

Producers of transportation fabrics since the days of mohair carriage robes, Chase is today designing upholstery and carpeting for the luxury sky-liners and "sky-flivvers" of tomorrow. Out of our past 75 years experience and our present woven and coated fabric developments and production for the armed forces will come new *Chase Fabrics* . . . light, colorful and durable . . . to provide the comfort-conditioned interiors of the planes, automobiles, busses and streamlined trains of the future.

Today, woven and coated fabrics and carpet for military and essential transportation uses.

In peacetime, Chase Velour Mohair Upholstery; Chase Leatherware and Rida Coated Fabrics; Chase Seamlac Carpet; Millay Suitings and Coatings.

CHASE

L. C. CHASE & COMPANY

295 FIFTH AVENUE, NEW YORK CITY

SALES DIVISION OF SANFORD HILLS. OFFICES:

BOSTON, DETROIT, CHICAGO, LOS ANGELES

XR

To the Guest within our walls

Whether you come from near or far, whether you come for an hour, a day, a month or more—we shall strive to make your stay a pleasant one...as memorable as a treasured visit to an experienced home. We want you to feel at home. That this is your home as long as you care to make it—that the old saying, "A Man's Home is His Castle" is the law of our hotel, that we are anxious to go as far as is humanly possible to do everything required to make you happy, long experience has taught us much about a host's responsibilities, but should we fail at any time to anticipate your needs, please remember: Your work is a command! Nothing is too good for you, no request too great or small to merit prompt compliance. And if any of us fails to respond cheerfully and generously to any request you make, we hope you will be kind enough to call the attention to our attention. Had we not say so, it is only with suggestions—that we can live up to our ideal

...to make and keep "an Inn where the traveler may have his ease", to attain that happy union of new-fashioned standards of Service with old-fashioned Charm and Hospitality.

to NEW YORK to CINCINNATI
to DETROIT to DALLAS to DAYTON



In New York

ROSEL NEW YORK

100 E. 42nd Street, New York 17, N.Y.
Rooms 1200. Single \$12.00. Double \$14.00. Bath \$1.00. Continental breakfast. Free parking. Free laundry. Free room service.

In New York

ROSEL LEXINGTON

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Most of them will be

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FARM UNIT OF TOMORROW



YEs—the time of tomorrow might walk on eggs as much as today. No more waste effort—no waste time! That single word, its new developments in technology, the engineering world the future can be more helpful. The future means you, no light steps as applied to all applications. When light steps are mentioned the same future.

1. **THESE** **RESEARCH** **AND** **THESE** **FOR**
 2. **THESE** **RESEARCH** **AND** **THESE** **FOR**

100

1000

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BOH



BOHN





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BRAND
BOOKING

CLOSER THAN WE THINK!

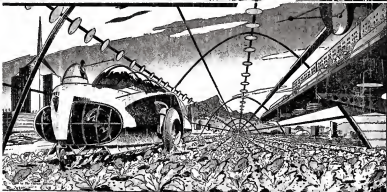
by *Richard*

FAT PLANTS AND MEAT BEETS

There will be less grazing land in tomorrow's crowded world, so feedstocks may have to be replaced by extracted vegetable proteins flavored with synthetics that taste like real meat.

According to Cal Tech biologist James Beamer, new varieties of plants, rich in fats and edible proteins will be developed. Interest in this idea is already evidenced at the Michigan Agricultural Board where plans for a "phytotree"—orbits-controlled greenhouse—arounder way. This equipment will facilitate the study of plant characteristics—and show how to modify them.

Beamer also predicted at a recent Biogen scientific symposium that future farms could be operated by tapes fed through reader computer panels.



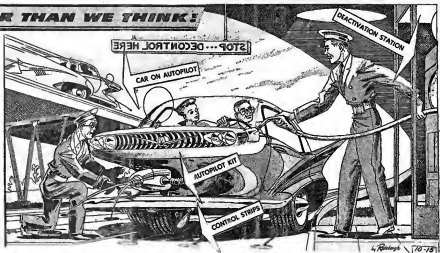
--- CLOSER THAN WE THINK!

MAGIC BEAM HIGHWAY

The government may soon build an automatic highway, on which drivers can look the other way while electronic controls pilot their cars.

One type of robot road has already been demonstrated by General Motors and RCA. Guidance strips and loops in the pavement receive electric impulses which are picked up electronically by a control box on your car. The impulses regulate direction, speed, braking and obstacle detection—so the car can be guided automatically, without possibility of accident. All you need do is take over when your car gets to the end of the automated section!

A 100-mile test route may be operating by 1964, say Washington reports, and major highway robot systems may be in use by 1975.



-- CLOSER THAN WE THINK!

by *Barthelme*

HEADPHONE TV

Today's television receivers may one day be replaced by devices that will "tickle" the brain, breaking right through to man's inner consciousness. At least that's what electronics trail-blazer Hugo Gernsback believes.

Brain tissue conducts electricity. What would be more logical than, asks Gernsback, than the development of a "superceptor" whose impulses would create images directly in the mind, like dreams, instead of lighting up a television screen? And three UCLA scientists have suggested that with the introduction of such a receiver, everyone in the family would be able to tune in his individual program—with eyes open or closed, whichever he prefers!

Next week:
Year-Round Farming

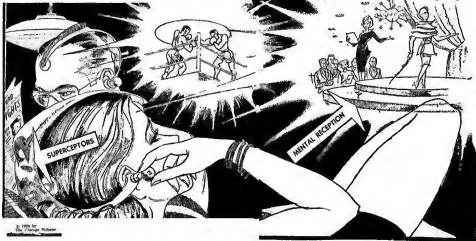


Illustration by
Barthelme

--- CLOSER THAN WE THINK!

ROBOT HOUSEMAID

There'll be no servant problem in your home of the future. Instead, employ a robot—to cook, set the table, clear it off, wash the dishes and put them away.

A firm of industrial designers, Sundberg, Foser, Inc., has already projected an idea for such a "mechanical maid." A self-propelled serving cart would move linen, glasses, china and silver to the table. After dinner, it would wash them and store them away.

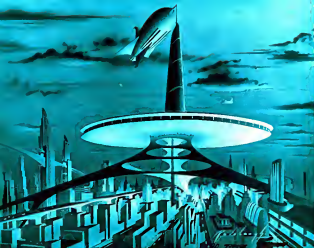
Meanwhile, Westinghouse is researching a device to take food automatically from storage and cook it on a preset schedule. All lady would have to do is preset her menu and table arrangements each morning.

Next Week: Undersea Rocket Pods



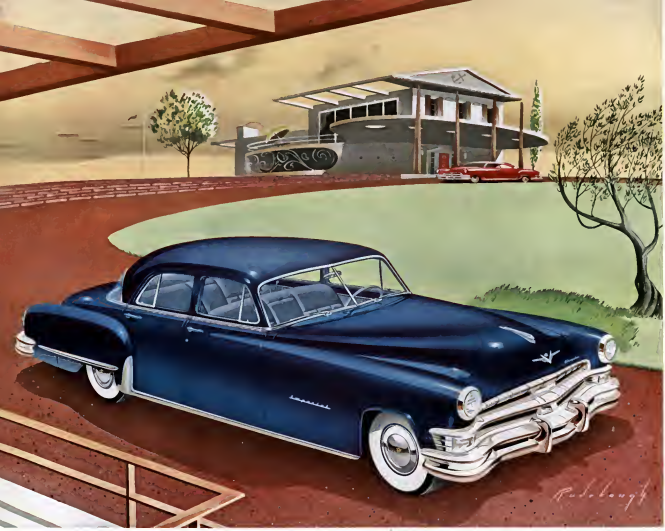
(By 1949 by The Chicago Tribune, 9/23)







✦ The Eight Passenger Sedan ✦



The Six Passenger Sedan

--- CLOSER THAN WE THINK!

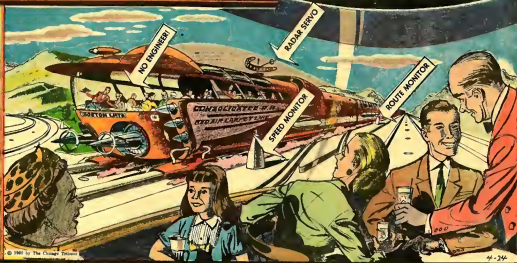
by R. B. R. R.

ROBOT RAILROADING

Future trains will be fully automatic—robots that can regulate their own speed and control their own movements to meet the most precise schedules.

The Union Switch and Signal Division is currently working on two kinds of electronic "brains" to make this possible. One type would be a trackside "decision maker," to regulate train speed, routing, starting and stopping. The other would be a "control servo," to signal that the robot train is obeying orders—or isn't, and why. A central monitoring panel would oversee train movements for hundreds of square miles. The first such installation may be on the New York subway shuttle trains.

Next week: Lunar Power Pack



--- CLOSER THAN WE THINK!

LeRidgely

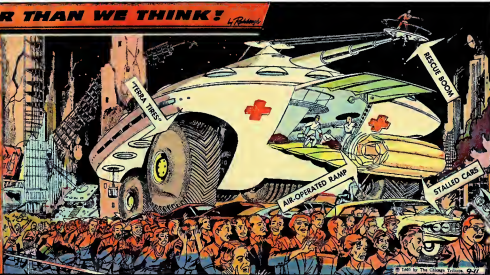
DISASTER VEHICLE

Tomorrow's methods of coping with catastrophes will make our present-day equipment as obsolete as the horse-drawn drays that handled the San Francisco fire havoc in 1906.

New king-size disaster wagons will face up to any kind of upheaval—atomic, atmospheric or volcanic. Their low-pressure "terra treads" doughnut wheels will permit movement across any kind of terrain, traffic or wreckage. Supplies will include hospital equipment, pharmaceuticals, blood, dehydrated food and the like.

Such wagons are now in the planning stage for military purposes. Compare also the enormous vehicles already in use as missile carriers, also those used in the mining and logging industries.

Next week: Sub Squelcher



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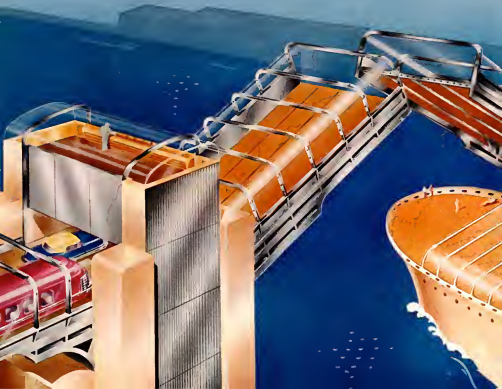
AN EYE OPENER FOR THE INDUSTRIAL WORLD

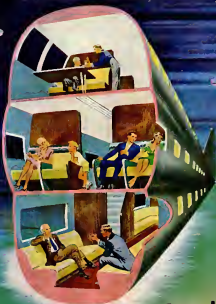
Covered bridges are reminiscent of days gone by. But here's one, made of aluminum and covered with plastic, that is a possibility for the world of the future. Bohn aluminum could readily figure in its construction, because aluminum combines those two sought-after qualities—strength with lightness. If this combination could be valuable in the products you make—our engineering staff would like to discuss with you the merits of aluminum or magnesium and possible applications.

BOHN

BOHN ALUMINUM AND BRASS CORPORATION • General Offices—Lafayette Building—Detroit 26, Michigan

Designers and Fabricators—ALUMINUM • MAGNESIUM • BRASS • AIRCRAFT-TYPE BEARINGS





3

stories - 40,000 feet high!

BOHN

Here's an interior view of one of the three-decker atmosphere planes that one day may be making non-stop flights between Europe and America. This is only one of the amazing things the world of tomorrow holds in store for us. In many of these new products and in improvements of many products in daily use—the light alloys, magnesium and aluminum, will play an important part in effecting weight reductions, reducing operating costs. Bohn Engineers will be glad to consult with you in fitting these versatile light alloys into your production plans.

BOHN ALUMINUM AND BRASS CORPORATION
GENERAL OFFICE—CAPITOL BLDG. • DETROIT 26, MICHIGAN

Designers and Fabricators
ALUMINUM • MAGNESIUM • BRASS • AIRCRAFT-TYPE DESIGNS



From Airport To Town By Monorail

Getting to and from the airport often takes as long as the time spent in the air on short inter-city hops. Illustrated above is a plan to eliminate this time loss by fast monorail train. You will see new transportation developments—new products—in the days that lie just ahead. In many of these, aluminum and magnesium—fabricated by Boho—will play an important part because of the great advantages these alloys possess, combining as they do, lightness with great strength, along with many other superiorities. Boho engineers would like to discuss the merits of these light alloys with you as related to the products you make or intend to make.

BOHN ALUMINUM AND BRASS CORPORATION
 GENERAL OFFICES—LAFAYETTE BUILDING—DETROIT 26, MICHIGAN

BOHN

Designs and Fabricators — **ALUMINUM • MAGNESIUM • BRASS • AIRCRAFT-TYPE BEARINGS**

More and more are advanced light alloys by Bohn being used in an ever-expanding variety of new products.

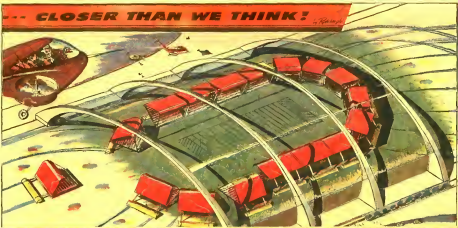
BOHN ALUMINUM & BRASS CORPORATION—GENERAL OFFICES, LAFAYETTE BUILDING, DETROIT 26, MICH.

Designers and Fabricators—ALUMINUM • MAGNESIUM • BRASS • AIRCRAFT-TYPE BEARINGS

BOHN



**A RADICAL DEPARTURE IN
ROAD BUILDING EQUIPMENT**



MECHANIZED STADIUM The stadium of tomorrow might very well be adaptable to a variety of athletic and other events, thereby solving a practical problem that has long plagued sports promoters.

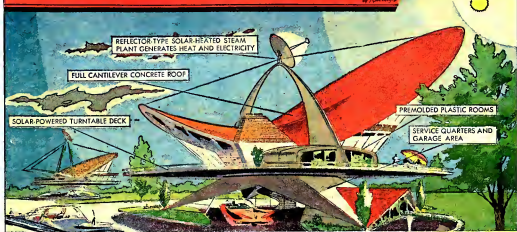
The mechanized areas depicted here contain self-propelled seat-filled grandstands made of a new lightweight high tensile aluminum. Such seating areas would be manueverable and could be properly positioned for the event

at hand with little difficulty. Thus the stadium would be as suitable for a baseball game as it would be for football, boxing or hockey.

And not only would such a stadium bring spectators right up to where the action took place—but as we added touch there might be an adjustable mobile glass roof to protect them from the elements.

Next week: "Tarnished Jet Lines"

--- CLOSER THAN WE THINK! *by R. B. Langley*



FOLLOW-THE-SUN HOUSE

Don't be surprised if many of tomorrow's homes are built on turntables. They would slowly pivot all day long to receive maximum benefit from health-giving sun rays and insure heat in winter.

This warm and colorful year-round design is adapted from an aluminum firm's summer house which has been studied and admired by architects. It would be built, together with a patio, over a service and garage area.

Ground and living levels would connect through a glass-enclosed staircase. Two-way glass could bring the outside view to those on the inside, while protecting the latter from inquisitive passersby. *Next week: Space Farmers*



NEW PAINT INGREDIENT
solves difficult problem for
WORLD OF TOMORROW

There's a paint story in the New York World's Fair that has startled architects, builders, painters, and decorators.

Upset are old ideas that no paint can withstand the chemical action of water and the alkalis in concrete, stucco, and other cement surfaces. Paint made with Perlon as a base does withstand this action. For spectacular proof, see the acres of murals, walls, and fountains at fountains and lagoons at the Fair.

Perlon is chlorinated rubber that Hercules research has improved in so many ways that it actually has become a revolu-

tionary paint ingredient. It makes possible paints that resist acids as well as alkalis.

Added to other types of finishes, including enamels, it speeds drying; gives a tougher, more elastic film. It is also used in printing inks, textile coatings, and adhesives; is rapidly being adopted for many more applications.

We ourselves make no paints, but produce the ingredient, Perlon, for expert paint manufacturers. Write for their names, or for information about Perlon for other uses.

THE TAYLOR AND PERKINS, and all concrete or stucco buildings, houses, and lagoons constructed by the Fair management, were painted, after competitive tests, with Perlon base finishes. Their ability to withstand the chemical action of alkalis and water has been clearly demonstrated on the buildings of private exhibitors also.

HERCULES
CHLORINATED
RUBBER



HERCULES POWDER COMPANY

WILMINGTON, DELAWARE

... CLOSER THAN WE THINK!

HIGHWAY TO RUSSIA

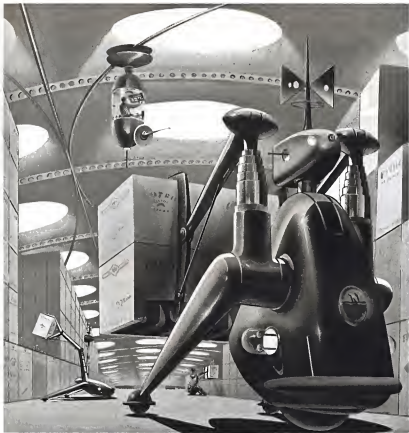
Sen. Magnuson of Washington has a bold new idea for linking our nearest state, Alaska, with Siberia via a bridge or vehicular tunnel across the 55- to 60-mile stretch of shallow waters of the Bering Strait. It would go from Wales, on the tip of Soviet Peninsula, to Little Diomede and Big Diomede Islands, then to Prtyak, Siberia.

The Senator describes this bridge-up within the lifetime of the present generation, to create a rail and highway route between points as distant as New York and Paris. "I am convinced," he says, "that the tourists who one day will drive that route will be our best ambassadors!"

Next week: Plastic Schoolhouse



CLIPPER
The Russian Bridge



Automation: magic warehousing, too?

In the "automatic" days to come, rolling robots will fill the order, label it and load it—all at the bidding of a punch-card many miles away. Such machines will be thrice complex. Yet, as today, they will have in generous measure that characteristic which makes American machinery world-famous—rugged dependability.

An important way engineers achieve dependability is by extensive use of oil seals to protect bearings, keep lubricants in place, keep dirt and water out.

National pioneered and developed oil and grease seals. We've made millions of them for machines and appliances, off-highway equipment, railway locomotives and cars—and hundreds of millions for America's truck, bus and automobile fleet. Today we can offer you over 2,500 different standard-design seals—a wide selection of types and sizes, with sealing members of leather or famous National Syntech® synthetic rubber. We also design and manufacture special seals for special problems.

NATIONAL MOTOR BEARING CO., INC.

General Offices: Redwood City, California. Sales Offices: Chicago, Cleveland, Dallas, Detroit, Downey (Los Angeles County), Milwaukee, Newark, Van Wert, Wichita. Plants: Redwood City, Downey and Long Beach, California; Van Wert, Ohio. Products: Syntech® and Leather, Oil, Fluid and Grease Seals, O-Rings, Airtren® Ducts, Silicone parts, Shims.



When motor coach trains cruise the highways...

National Oil Seals will protect their bearings

Articulated, rubber-tired "trains" may cruise the highways of the future, offering passengers luxurious sleeping, dining and lounge facilities, plus the flexibility, economy and convenience of motor coach travel. These mechanical marvels of tomorrow, like all machines of today, will depend largely on efficient bearing performance. And bearing performance in turn is directly dependent upon the efficiency of lubricant seals. National Oil Seals have been in the vanguard, breaking bottlenecks in modern machinery of all kinds. Our engineers are continuously researching and testing oil seals to match the imagination and daring of the most advanced designers.

Because of this "years-ahead" research, National Oil Seals give "years-ahead" performance in your products of today.

We welcome tough sealing problems. May we help you?

NATIONAL MOTOR BEARING CO., INC.

General Offices: Redwood City, Calif.

Plants: Redwood City, Calif.; Downey (Los Angeles County), Calif.; Van Wert, Ohio



FLEET OWNERS ATTENTION:

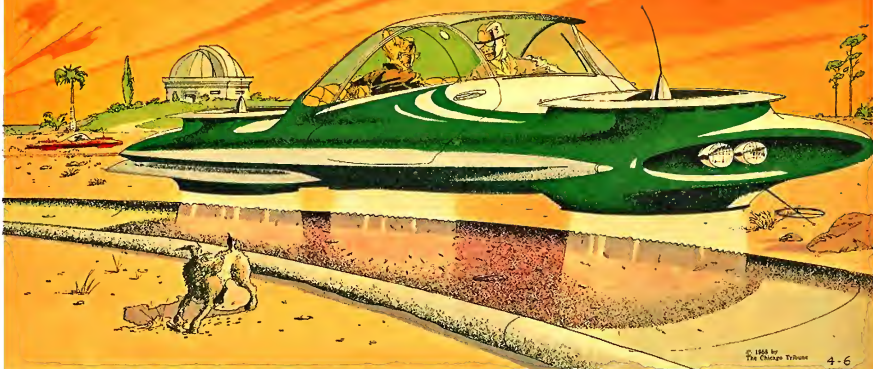
If your Company operates fleets of trucks, buses or automobiles, remember this fact: An oil seal is a precision unit. Once an oil seal has been "run in", it is extremely difficult after removal, to replace it in exactly the same position on the shaft. So when brakes are re-lined or front wheel bearings re-packed, insist that new oil seals be installed. Equipment manufacturers recommend this practice.



Original equipment for all cars, trucks, buses and tractors—in fact, wherever shafts turn.

--- CLOSER THAN WE THINK!

by Robert Lynd



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The Chicago Tribune

4-6

FLYING CARPET CAR

Look, pa, no wheels! Use of a thin layer of compressed air may allow autos to hover and move just above ground level.

A pipe dream? Not at all. The concept (already proved) comes from scientist Andrew Kucher, vice-president of engineering at one of our major motor companies. His people are studying how to maintain stability. Special highway engineering is one way. Another is

skillful design, evidenced already in experimental ideas from the staff of motor stylist George W. Walker.

Today's earthbound cars won't turn into low flying carpets right away. But it may happen sooner than we think!

XR

... **CLOSER THAN WE THINK!** *by Pauline*

24-HOUR DAYLIGHT

Man-made balls of fire may be used to light up tomorrow's cities. American scientists are currently pondering an idea along these lines that was first described in technical papers by George Bates, a Russian.

Bendix researcher Donald Ritchie recently reported that balls of light—actually miniature stars—might be created by focusing huge transmitting devices so that the rays they generate would cross each other and produce electromagnetic fields. These luminous fields could be used to light up large areas underneath them. Rays would be pointed as necessary to determine exactly where the artificial "sunlight" would fall.

Next week:
Mystic Moon



HERE COMES THE FLYING BUS

You may see things in the world of the future even more strange than this double helicopter bus that needs no landing wheels. New materials — new production techniques — give promise of untold developments. Important light alloys that will help shape this future world are aluminum and magnesium. The combination of strength with lightness,

together with attractive appearance which both possess in marked degree, will assure many new uses for aluminum and magnesium. But we're not waiting for the world of tomorrow. Bohn engineers would like to discuss possible applications of these light alloys in the products you make. Write, phone or wire for further details.

BOHN ALUMINUM & BRASS CORPORATION

GENERAL OFFICES

LAFAYETTE BUILDING

DETROIT 26, MICHIGAN

BOHN

Designers and Fabricators of

ALUMINUM • MAGNESIUM • STEEL

AIRCRAFT-TYPE BEARINGS



--- CLOSER THAN WE THINK!

by Redd Foxx

HOSPITALS IN THE SKY!

The American Rocket Society has reported to President Eisenhower that practical medical science could benefit importantly from the weightlessness, irradiation and low temperatures of outer space. So we may find that some of tomorrow's hospitals may actually be anchored in the heavens.

One of these hospitals might be shaped like a disc atop elevator tubes leading to the control section. The mushroom-like disc would contain weightless operating rooms for treating heart and other organic troubles as well as bone diseases. It would also serve as a nucleus for crystal balls which, orbiting slowly, would utilise concentrated sunrays to treat cancer, skin diseases and similar ailments. There would also be experimental areas for the study of low temperature therapy—a challenging new field for medical investigation.





$$(\sqrt[n]{a})^n$$

NOMICS *for advanced post post post post* ALGEBRA

$$y = 4x^2 - 1$$

$$(\sqrt{x})^2 = x$$

$$(\sqrt{x})^2 = x$$

$$(\sqrt[n]{a})^n - (a^{\frac{1}{n}})^n = a$$

BOHN LOOKS AHEAD ☆ ☆



Lighter materials—greater strength—improved economy—new beauty—will be the advantages of the cars of tomorrow. Bohn, the only volume operator in the world specializing in aluminum, magnesium and brass & bronze products, is in a position to give unbiased advice on all of these basic metals. This is a unique service. When peace comes, remember the name Bohn. The vast Bohn resources and metallurgical studies might prove very useful in solving some of your manufacturing and selling problems.

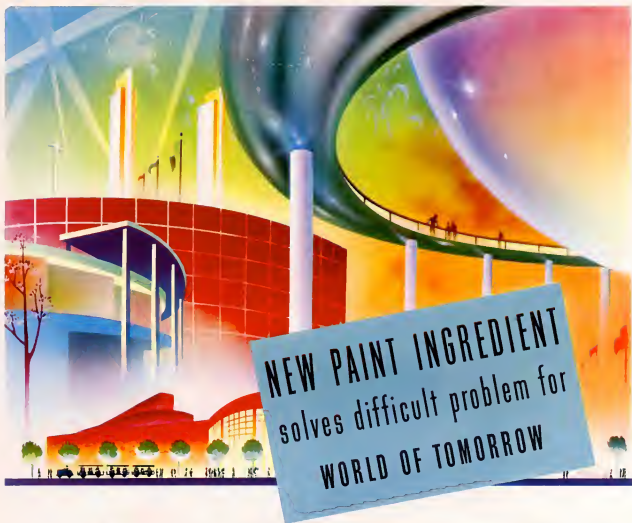
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BOHN ALUMINUM AND BRASS CORPORATION
GENERAL OFFICES—LAFAYETTE BUILDING
DETROIT, MICHIGAN

Designers and Fabricators

ALUMINUM • MAGNESIUM • BRASS & BRONZE • AIRCRAFT-TYPE BEARINGS



NEW PAINT INGREDIENT solves difficult problem for WORLD OF TOMORROW

There's a point story in the New York World's Fair that has startled architects, builders, painters, and decorators.

Upset are old ideas that no paint can withstand the chemical action of water and the alkalis in concrete, stucco, and other cement surfaces. Paint made with *Parlon* as a base does withstand this action. For spectacular proof, see the acres of fountains, walks, and basins for fountains and lagoons at the Fair.

Parlon is chlorinated rubber that Hercules research has improved in so many ways that it actually has become a revolu-

tionary paint ingredient. It makes possible paints that resist acids as well as alkalis.

Added to other types of finishes, including synthetics, it speeds drying; gives a tougher, more elastic film. It is also used in printing inks, textile coatings, and adhesives; is rapidly being adopted for many more applications.

We ourselves make no paints, but produce the ingredient, *Parlon*, for expert paint manufacturers. Write for their names; or for information about *Parlon* for other uses.

THE TETLON AND PERISPHERE, and all concrete or stucco buildings, basins, and lagoons constructed by the Fair management, were painted, after competitive tests, with *Parlon* base finishes. Their ability to withstand the chemical action of alkalis and water has been clearly demonstrated on the buildings of private exhibitors also.

HERCULES
CHLORINATED
RUBBER



Cellulose Products Department

HERCULES POWDER COMPANY

Incorporated

WILMINGTON, DELAWARE

© 1959-60

CELLULOSE ACETATE . . . NITROCELLULOSE . . . ETHYL CELLULOSE . . . CHLORINATED RUBBER

XR

BOHN

Magnificent new designs, like this one, will some day be popping up very rapidly. These advanced models will be powered with modern motors that will operate economically at high speeds. Bohn engineers will be of vital importance in developing these new engines. Light alloys by Bohn will be generously used. If your product now—or should be—made of a light alloy remember the Bohn organization. This is the only large scale operation in the world which engineers and fabricates aluminum—magnesium—and brass products within the one organization.

Station Wagons That Will Meet You



BUY
WAR
BONDS

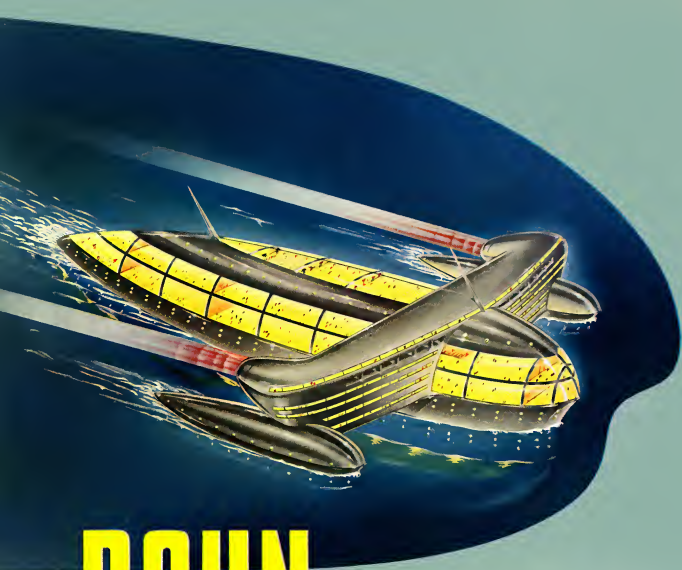


BOHN ALUMINUM AND BRASS CORPORATION

GENERAL OFFICES—LAFAYETTE BUILDING, DETROIT, MICH.

Designers and Fabricators

ALUMINUM • MAGNESIUM • BRASS • AIRCRAFT-TYPE BEARINGS



BOHN

WHEN DREAM SHIPS COME TRUE—

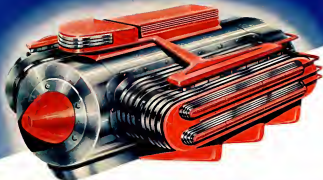
For those who like to take their ocean voyages at high speed but do not wish to relinquish such luxuries as swimming pools, orchestras and sun decks, etc., the following might be a solution. Why not giant, jet-propelled ships which could provide the desired comforts and at the same time have the faster speed? Such developments as this and a thousand others call for the use of light alloys—aluminum and magnesium—as produced by the Bohn organization. Bohn engineers and production experts have the “Know-how”—can give expert advice on the many advantages of light alloys. Consult Bohn first.

BOHN ALUMINUM & BRASS CORPORATION

GENERAL OFFICES—LAFAYETTE BUILDING • DETROIT 26, MICHIGAN

Designers and Fabricators—ALUMINUM • MAGNESIUM • BRASS • AIRCRAFT-TYPE BEARINGS

NEW ENGINE DEVELOPMENTS



SOME DAY after the war, automotive and aircraft developments will probably startle the industrial world. Who knows? Today's modern aircraft was hardly on paper at the start of the present war. One of the basic changes in the automotive field will be the wider use of light alloys. Through new engine designs, increased horsepower output per pound of engine weight will be developed. The Bohn organization is one of the pioneers of light alloy parts for automobile engines. When you are ready to talk light alloys as applied to advanced engine designs, this is the place to come.



BOHN
ENGINE

BOHN

BOHN ALUMINUM AND BRASS CORPORATION

GENERAL OFFICES: 1400 WEST 10TH AVENUE, DENVER, COLORADO

Designs and Fabrication

ALUMINUM • MAGNESIUM • BRASS • AIRCRAFT-TYPE BEARINGS

FARMER'S DELIGHT!

This farm combine of the future—as the designer sees it—would bring delight to any farmer and perhaps too, a surprise in the way his farm equipment may be modernized in line with the popular trend. Aluminum and magnesium would have a prominent role in these new designs as they will have in many of the products you will see in a post-war world. The advantages of these new light alloys are many—both from the standpoint of sales appeal and reduction in operating costs. Bohn engineers will be glad to outline the many outstanding features to you in detail.

BOHN ALUMINUM AND BRASS CORPORATION
GENERAL OFFICES—LANSING, MICHIGAN—DETROIT 26, MICHIGAN
Designers and Fabricators
ALUMINUM • MAGNESIUM • BRASS • AIRCRAFT • TRUCK • BEARING



BOHN





When a single machine does a season's farming...

National Oil Seals will protect the bearings

Some bright morning in the future, the farmer's crew will board an ingenious machine. They'll push a few buttons, move a lever. Then the miraculous behemoth will condition, break, cultivate and fertilize the soil, sow and germinate the seed—all in one operation. Whatever tomorrow's "once-over tillage" machines are like, they will use countless bearings. And those bearings, as today, will depend for efficient operation on reliable lubricant seals.

National Oil Seal engineers are constantly developing and improving oil and lubricant seals—not only to meet present-day problems—but to match the imagination of tomorrow's most forward-thinking design engineers. Such "years-ahead" research means National Oil Seals can give you "years-ahead" performance in your products of today. National engineers like tough sealing problems. They would welcome a chance to help solve yours.



NATIONAL MOTOR BEARING CO., INC.

GENERAL OFFICES: Redwood City, Calif. • SALES OFFICES: Chicago; Cleveland; Dallas; Detroit; Milwaukee; Newark; Wichita • PLANTS: Redwood City, Downey, Long Beach, Calif.; Van Wert, Ohio
PRODUCTS: Oil, Fluid and Grease Seals, Airtrain Ducts, O-Rings, Silicone parts, Shims.

Original and replacement equipment on cars, trucks, buses, tractors, agricultural and earth-moving equipment, appliances, railway equipment, machinery.

2431

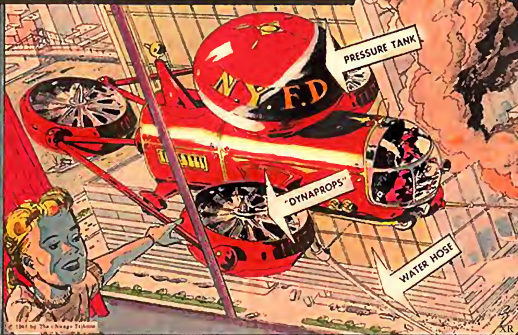
-- CLOSER THAN WE THINK!

by Penelope

FLYING FIRE ENGINES

Helicopters are getting more versatile. A new kind of vertical flying machine—ducted fan aircraft—will make possible even more applications in the "sky-crane" class, of which this flying fire engine is one.

Tomorrow's firefighters, as a leading helicopter technician has predicted, may actually travel in airborne units, powered by "dynaprop" fans. Great advantages will be derived from the ability to hover beside conflagrations, regardless of whether the blaze is high in a skyscraper or simply smouldering in a farmer's barn. Firefighting direction will improve, rescue work will be far more efficient than with ladders, and radio instructions from aloft will speed the subduing of flames.



... CLOSER THAN WE THINK! ...

by Rodabaugh

WALL TO WALL TELEVISION (WORLD-WIDE)

Tomorrow's world-wide television will bring you bullfights from Spain, exploration from Africa and vacation reports from Tahiti—and in giant size, wall to wall if you wish.

Picture-thin screens will be made of tiny "electroluminescent" crystals, a brand-new development in electronics. They will replace the phosphor screen and electron gun of today's thick TV tube.

According to E.W. Engstrom, a top industry executive, "The compact circuit for such a system may be built into a frame around the screen, and the channel selector and picture adjustment controls may be contained within a small control box."



--- CLOSER THAN WE THINK!

by R. B. R. R.

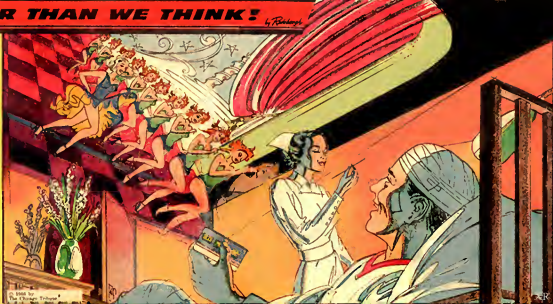
POP-OUT TV PROGRAMS

Tomorrow's television will be three-dimensional! Hugo Gernsback, famed inventor, predicts that improved receivers will provide images that seem to be projected well in front of the picture tube, almost as if there were little flesh-and-blood people out there.

What's more, the illusion of reality will be enhanced by the emission of real-life odors. In fact, a method for televising any smell — such as roses, perfume, steaming coffee, etc. — has already been demonstrated by research workers.

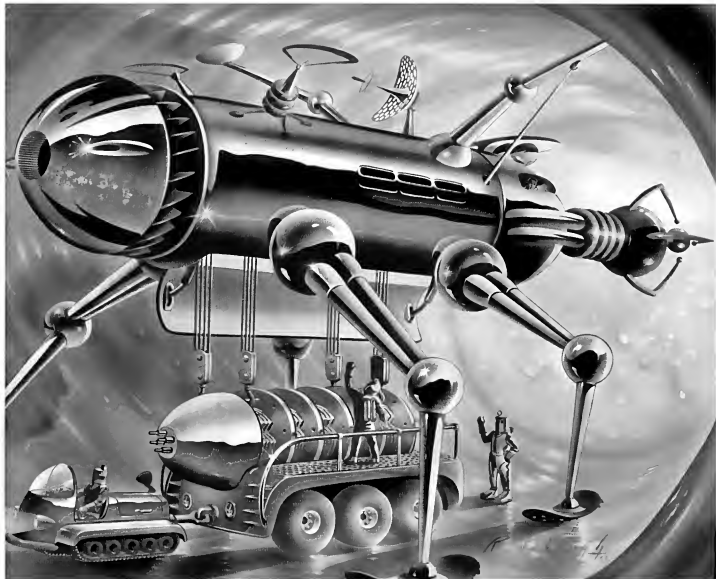
The illustration shows one possible application of the "pop-out" technique. Ceiling television sets might provide continuous three-dimensional entertainment for hospital patients. Needless to say, all such reception will be in full color, which — according to New York color designer Howard Ketcham — can provide "cheer and relaxation" that will benefit convalescents, just as the traditional drab gray might have the reverse effect of depressing the spirits.

Next week: Arctic War Train



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The Chicago Tribune
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SR



When mole-like machines "melt" tunnels through mountains...

precision National Oil Seals will protect their performance

Incredible machines may someday *burn* their way under cities and rivers, through mountain ranges—fusing earth and rock into overlasting tunnels for irrigation, railroads or auto expressways. Such machines will be marvels of complexity. Yet, like today's equipment, their performance will depend on oil seals and O-Rings.

Oil seals are steel-and-synthetic-rubber or steel-and-leather parts, precision made to keep lubricants in and dirt and water

out of mechanical assemblies. O-Rings are synthetic rubber diameters which seal pressures in moving or non-moving hydraulic and pneumatic assemblies. National pioneered oil seals and O-Rings, and is today a leader in this field.

Perhaps precision National Oil Seals and O-Rings can improve your product's performance, lengthen its life, or make it easier to assemble or service. Our long experience is at your disposal.



Original equipment on cars, trucks, buses, tractors, agricultural and earth-moving equipment, railway rolling stock, machinery and appliances.

NATIONAL MOTOR BEARING CO., INC.

General Offices: Redwood City, California. Sales Offices: Chicago, Cleveland, Dallas, Detroit, Downey (Los Angeles County), Milwaukee, Newark, Van Wert, Wichita. Plants: Redwood City, Downey and Long Beach, California; Van Wert, Ohio. Products: Oil, Fluid and Grease Seals, O-Rings, Airtron® Ducks, Silicone parts, Shims.

*T. H. Reg.



When super-submarines seek lost Atlantis...

National Oil Seals will protect the bearings

Atomic submarines of giant size—probing the deepest oceans—perhaps solving the secret of lost civilizations! Machines of such great complexity must have many bearings, and those bearings, as today, will depend for efficiency on reliable lubricant seals.

National Oil Seal engineers are constantly developing new seals—not

only to answer present-day problems—but to match the imagination of tomorrow's most ingenious designers. Such "years-ahead" research means National Oil Seals can give you "years-ahead" performance in your products of today. National engineers like tough sealing problems. Will you write us about yours?



Original and replacement equipment on cars, trucks, buses, tractors, agricultural and earth-moving equipment, appliances, railway equipment, machinery.

2426

NATIONAL MOTOR BEARING CO., INC.

GENERAL OFFICES: Redwood City, Calif. • SALES OFFICES: Buffalo; Chicago; Cleveland; Dallas; Detroit; Milwaukee; New York City; Philadelphia; Richmond; Rochester; W. Springfield, Mass.; Syracuse; Wichita • PLANTS: Redwood City, Downey, Long Beach, Calif.; Van Wert, Ohio • PRODUCTS: Oil, Fluid and Grease Seals, Airtron Ducts, "O" Rings, Silicone parts, Shims.



When rolling robots handle our warehousing...

precision National Oil Seals will protect their performance

In downtown Manhattan, an order clerk feeds a punch card into an electronic device. Instantly, in a mid-western warehouse, a robot glides into action. Silently, surely, it moves down long aisles, automatically filling the order, labeling it, and delivering it to the dock. High above, an attendant monitors many such machines at work filling orders—placing incoming shipments in stock.

Such ingenious, "thinking" machines will be ringing tributes to American ingenuity. Yet, like today's equipment, they will depend on oil seals and O-Rings for performance

and protection of vital assemblies. Oil seals are steel-and-synthetic-rubber or steel-and-leather parts, precision made to keep lubricants in and dirt and water out of machinery. O-Rings are synthetic rubber diameters—pressure seals used throughout hydraulic and pneumatic equipment.

Unknown a few years ago, these devices are now in universal use. National pioneered oil seals and O-Rings, and is today a leader in the field. Perhaps National Oil Seals and O-Rings can improve your product's performance, lengthen its life, or make it easier to assemble or service.



Original equipment on cars, trucks, buses, tractors, agricultural and earth-moving equipment, railway rolling stock, machinery and appliances.

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*T. M. Reg.





1943: "The Men Who Plan Beyond Tomorrow"
Seagram's VO Canadian Whiskey XR

Men Who Plan beyond Tomorrow Prefer the World's Lightest Highball!



3-Dimensional Movies—more thrilling than any you ever dreamed of! The people in the picture seem to step right off the screen and pass so close you could touch them. Planes overhead make you think you're seeing real ones . . . and a vast, enthralling spectacle unfolds—so true to life you feel you are witnessing the actual, exciting events. That's the movie of the future, being perfected now by Men Who Plan Beyond Tomorrow!

* * *

DO YOU recall the day six years ago when the Irish Free State became the State of Eire? When "Northwest Passage" was chosen the month's best book? When the "Ranger" won the yacht races from "Endeavour II"? That's the year the rare whiskies in Seagram's V.O. CANADIAN were carefully blended for gracious flavor and stored away to mellow. Through the years these distinguished whiskies have been treasured for *Tomorrow* . . . so the V.O. of today will always be so smooth, so satisfying, so definitely preferred!



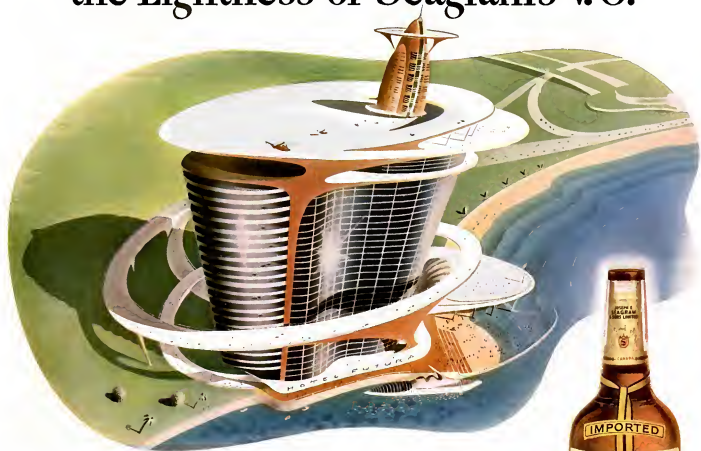
Seagram's V.O. CANADIAN

CANADIAN WHISKY • A BLEND OF RARE SELECTED WHISKIES

Six Years Old—86 & 8 Proof Seagram-Distillers Corporation, New York

XR

Men Who Plan beyond Tomorrow Like the Lightness of Seagram's V.O.



A seashore hotel of Tomorrow! One hundred miles from your office... thirty minutes by air. Your helicopter lands on the roof... a scooter glides you down for a dip before you dine. You dance or play the evening away... and then to your room, whose all-glass outside wall brings you starlight by night... the sun's rays by day. It's being developed *now* by Men Who Plan Beyond Tomorrow!

★ ★ ★
DO YOU REMEMBER when Pittsburgh won the Rose Bowl football game from Washington? When the U.S. took the Davis Cup in the International Tennis Match? When Scabiscuit tied with War Admiral as "the horse of the year"? All these things happened six years ago... when the distinguished whiskies in Seagram's V.O. CANADIAN were blended for gracious flavor and laid away to mellow. Ever since that memorable year, these rare whiskies have been treasured for *Tomorrow*... so the V.O. of today will always be so smooth, so satisfying, so definitely preferred!



Seagram's V.O. CANADIAN

CANADIAN WHISKY • A BLEND OF RARE SELECTED WHISKIES

Men Who Plan beyond Tomorrow Like CANADIAN Whisky at its Glorious Best!



The Rocket Ship of the future—shooting you from Minneapolis to Mandalay in less than half a day! Traveling above the stratosphere, propelled by gases roaring from its tail, this sealed, luxurious carrier will cover regular routes to all the world. It seems a dream today, but it's being talked of now by Men Who Plan Beyond Tomorrow!

* * *

THINK back six years ago to the time when "Emile Zola" came alive on every screen . . . when Egypt first became a member of the League of Nations. Do you realize that Seagram thought of Tomorrow even then? That was the year when the distinguished whiskies in Seagram's V.O. CANADIAN were blended for gracious flavor and laid away to mellow. Ever since then these rare whiskies have been treasured for *Tomorrow*...so the V.O. of today will always be preferred FOR THE WORLD'S LIGHTEST HIGHBALL.



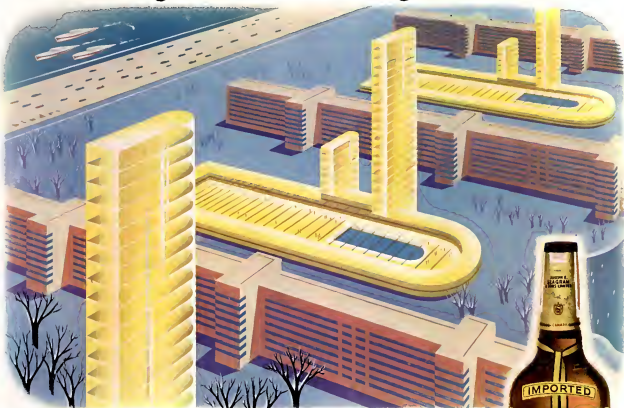
Seagram's V.O. CANADIAN

CANADIAN WHISKY • A BLEND OF RARE SELECTED WHISKIES

Six Years Old — 86.8 Proof. Seagram-Distillers Corporation, New York

XR

Men Who Plan beyond Tomorrow Like the Lightness of Seagram's V.O.



FOR A HEALTHIER AMERICA!

Architects are planning Health Centers, set alongside colony apartment buildings. Tall glass towers equipped for light and heat therapy, group exercises, massage and medical care... Tennis and badminton courts, skating rinks, swimming and wading pools—under roll-back glass roofs. Part of the trend away from congestion in cities, part of the progress toward more spacious, happy living conditions.

* * *

SEAGRAM was planning for the future six long years ago... the year that saw the "race of the century" when Seabiscuit outran War Admiral. That same year, Ireland elected her first president, Hitler dismembered Czechoslovakia, and the *youngest* of the rare whiskies in your Seagram's V.O. CANADIAN was carefully laid away to mellow! So that today you could have Seagram's V.O.—CANADIAN WHISKY AT ITS GLORIOUS BEST.



Seagram's V.O. CANADIAN

CANADIAN WHISKY • A BLEND OF RARE SELECTED WHISKIES

Six Years Old—86.8 Proof. Seagram-Distillers Corporation, New York

XR